

*Genitalia*: Last ventral segment of female nearly twice as long as preceding, lateral angles well produced and rounded, hind margin shallowly excavated, the median portion with a short, blunt, slightly bifid tooth. Male valve triangular, broad and rather short. Plates short and broad, diverging at tips, somewhat similar to those of *Phlepsius divergens* n. sp. but with the tips thin and curled upward. Pygofer extending beyond plates, tips thin and bluntly pointed.

*Holotype* male, *Allotype* female, and one female *paratype* from Clyde T. Reed, Kingsville, Texas.

*Types*.—Cat. No. 43588, U. S. N. M.

BOTANY.—*Two new grasses from Mexico*.<sup>1</sup> JASON R. SWALLEN, Bureau of Plant Industry. (Communicated by A. S. HITCHCOCK.)

Among the grasses collected by Prof. H. H. Bartlett on the Expedition of the University of Michigan to the Sierra de San Carlos, Tamaulipas, Mexico, in the summer of 1930, the following two species are new.

***Panicum transiens* Swallen, sp. nov.**

Perenne; culmi erecti 60–65 cm. alti, pubescentes vel pilosi, ramosi; vaginae papilloso-pilosae, quam internoda culmorum breviores, quam internoda ramorum longiores; laminae 5–12 cm. longae, 6–14 mm. latae, lanceolatae, pubescentes, marginibus albis scabris, basi papilloso-ciliatae; panicula 8–15 cm. longa, ramis adscendentibus vel divergentibus; spiculae appressae, 4 mm. longae, basi attenuatae, papilloso-pubescentes; gluma prima subacuta 2 mm. longa; gluma secunda quam spicula paulo brevior; lemma sterile spiculam aequans; lemma fertile 3 mm. longum, subacutum apice pubescens.

Perennial, culms erect, 60–65 cm. tall, freely branching, pubescent or pilose; sheaths papillose-pilose, densely pubescent on the collar, those of the main culm shorter than the internodes, those of the branches much longer than the internodes; blades 5–12 cm. long, 6–14 mm. wide, lanceolate, flat, pubescent on both surfaces, the white scabrous margins papillose-ciliate toward the rounded base; ligule densely ciliate, about 0.5 mm. long; panicles 8–15 cm. long, the short-branches stiffly ascending or spreading; spikelets (except the terminal ones) short-pedicel, appressed to the branches, 4 mm. long, pointed at the apex, attenuate at the base, papillose-pubescent; first glume 2 mm. long, subacute, the margins somewhat hyaline; second glume a little shorter than the spikelet exposing the fruit; sterile lemma equaling the spikelet; fruit 3 mm. long, subacute, smooth and shining, puberulent at the apex.

Type in the United States National Herbarium No. 1501526, collected on Mesa de Tierra, vicinity of San José, altitude 1000 meters, Sierra de San Carlos, Tamaulipas, Mexico, July 19, 1930, by H. H. Bartlett (No. 10454).

Another specimen (Bartlett 10090) collected at La Vegania, vicinity of San José, Tamaulipas, Mexico, is also referred to this species.

*Panicum transiens* is allied to *P. pedicellatum* Vasey of Texas and *P. nodatum* Hitchc. & Chase of Texas and northern Tamaulipas. From the

<sup>1</sup> Received August 11, 1931.

former it differs in having longer spikelets, 4 mm. long, from the latter in having a longer subacute first glume, and from both in being a larger plant with much longer and wider blades. These three species compose the *Pedicellata* group which is intermediate between the subgenus *Dichantherium* and true *Panicum*.

*Eragrostis longiramea* Swallen, sp. nov.

Perennis; culmi erecti, 150–160 cm. alti, laeves vel scaberuli; vaginae dense papilloso-pilosae; laminae 35–60 cm. longae, 4–8 mm. latae, planae, elongatae, attenuatae, scabrae, basi angustae et sparsim papilloso-pilosae; panícula 50–60 cm. longa, ramis gracilibus, scabris, adscendentibus vel divergentibus, inferioribus 15–25 cm. longis; spiculae 3–5 mm. longae, 5–7 florum; glumae acutae vel acuminatae, 2 mm. longae, carinis scabris; lemmata 2 mm. longa.

Perennial; culms apparently single, erect, 150–160 cm. tall, smooth or minutely scaberulous; sheaths rounded on the back, shorter or longer than the internodes, densely papillose-pilose with spreading hairs, especially on the collar; blades 35–60 cm. long, 4–8 mm. wide, flat, elongate, attenuate to a fine point, narrowed toward the base, sparsely papillose-pilose on both surfaces near the base, scabrous above and toward the margins beneath, the lower surface otherwise smooth; panicle 50–60 cm. long, the axis glabrous or retrorsely pilose, the branches slender, scabrous, ascending or spreading, pilose in the axils, the lower ones 15–25 cm. long; spikelets 3–5 mm. long, plumbeous, the pedicels long and slender, spreading or sometimes appressed, 5–7 flowered, the florets rather crowded; glumes acute or acuminate, 2 mm. long, scabrous on the keel; lemmas 2 mm. long, slightly keeled toward the minutely scabrous apex, the lateral nerves indistinct.

Type in the United States National Herbarium No. 1501524, collected on Pico del Diablo, vicinity of Marmolejo, Sierra de San Carlos, Tamaulipas, Mexico, August 12, 1930, by H. H. Bartlett (No. 10910).

One other specimen besides the type has been seen. This is Bartlett 10433 collected on Mesa de Tierra, vicinity of San José, Sierra de San Carlos, Tamaulipas, Mexico. This differs from the type in having the axis of the panicle retrorsely pilose.

This species is allied to *E. lugens* Nees and *E. polytricha* Hack., differing from them in being a much larger plant with broader, elongate blades.

**BOTANY.**—*The juice sac of the orange with some observations on the plastids of citrus.*<sup>1</sup> M. B. MATLACK, U. S. Department of Agriculture. (Communicated by J. A. LÉCLERC.)

The writer became interested in the structure of the juice sac of the orange when he observed that only a small part of the liquid contained therein ran out when the juice sac was pricked with a needle. He also noted what appeared to be a cellular structure in the inner portion of the juice sac when it was flattened out on a slide and observed under a microscope. This led him to make some sections of the sacs. The

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